

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF NEW YORK

PAUL D. CEGLIA,

Plaintiff,

vs.

MARK ELLIOT ZUCKERBERG,

Individually, and

FACEBOOK, INC.,

Defendants.

No. 1:10-cv-00569
(RJA)

August 10, 2012

10:05 a.m.

Deposition of ALBERT LYTER, held at the
offices of Gibson, Dunn & Crutcher LLP, 200
Park Avenue, New York, New York, before
Laurie A. Collins, a Registered Professional
Reporter and Notary Public of the State of New
York.

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A P P E A R A N C E S:

BOLAND LEGAL, LLC

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BY: DEAN BOLAND, ESQ.

(via telephone)

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BY: ALEXANDER H. SOUTHWELL, ESQ.

SRIPRIYA NARASIMHAN, ESQ.

1

2 A L B E R T L Y T E R ,

3 called as a witness, having been duly sworn
4 by the notary public, was examined and
5 testified as follows:

6 EXAMINATION BY

7 MR. BOLAND:

8 Q. Dr. Lyter, good morning. My name is
9 Dean Boland. I represent the plaintiff, Paul
10 Ceglia, in this matter.

11 You and I haven't met before, have we?

12 A. No, we have not.

13 Q. Okay. Have you had any conversations
14 with the defense attorneys before your deposition
15 today?

16 A. Yes.

17 Q. When was the most recent conversation
18 you had with them preparing for your deposition?

19 A. Yesterday afternoon.

20 Q. And did you discuss your deposition
21 with them before yesterday afternoon?

22 A. Yes.

23 Q. And when was that conversation?

24 MR. SOUTHWELL: Dean, I assume you're
25 referring to substantive conversations rather

1 Lyter

2 than, you know, saying, you know, logistical.
3 I guess I'll object to the form. Maybe if you
4 can clarify that, that will be helpful.

5 MR. BOLAND: Yeah, I'm just asking a
6 specific conversation other than before
7 yesterday afternoon in preparation for this
8 deposition, that conversation.

9 A. Yes, I had a similar conversation in
10 preparation for the deposition last week when the
11 deposition was supposed to occur.

12 Q. Okay. And you provided at least a
13 declaration in this case, probably more than a
14 year ago. Do you recall that?

15 A. I don't recall the date.

16 Q. But you recall a declaration -- it's
17 around -- I have the date in front of me. It's
18 August of 2011. Does that sound familiar to you?
19 Does that ring a bell?

20 A. Is that the one dated August 15th,
21 2011?

22 Q. Yes, that would be right. Yes.

23 MR. BOLAND: And Alex, by chance did
24 you get my e-mail with those two documents
25 attached, or three documents attached?

1 Lyter

2 MR. SOUTHWELL: Yes. And I sent you a
3 response saying I provided those three to
4 Dr. Lyter. So he has them in front of him.

5 MR. BOLAND: I didn't hear what you
6 said, Alex.

7 MR. SOUTHWELL: Yes, I sent you an
8 e-mail. I have printed them, and he has them
9 in front of him.

10 Q. Dr. Lyter, if you could just --

11 MR. BOLAND: Or the court reporter
12 could just mark that declaration dated August
13 15th, 2011, as Exhibit 1, please -- or Lyter,
14 Lyter 1, so we can keep track of it.

15 (Lyter Exhibit 1, declaration of Lyter
16 dated 8/15/11 without exhibits, marked for
17 identification.)

18 Q. Dr. Lyter, do you recognize this
19 document that's now marked as Lyter 1?

20 A. Yes, I do.

21 Q. What do you recognize it to be?

22 A. It's labeled as my declaration. It
23 bears my signature and is dated August 15th, 2011,
24 and that it was prepared in Raleigh, North
25 Carolina.

1 Lyter

2 Q. And does that appear to be the
3 declaration you filed -- or that was filed in this
4 case back in August of 2011 and authored by you?

5 A. Well, it appears to be something that I
6 authored. I don't know when it was filed.
7 Well --

8 Q. I'll represent to you the date across
9 the top -- the information printed across the top
10 of the declaration indicates when it was filed.
11 So that's August 15th, 2011.

12 A. Okay.

13 Q. Does that sound about right?

14 A. Yes.

15 MR. SOUTHWELL: Mr. Boland, I would
16 just note for the record that what you sent us
17 does not actually have the exhibits to this
18 declaration. So, I mean, that's fine. I just
19 want to make it clear that this is the five
20 pages of the declaration without the exhibits.

21 MR. BOLAND: Yes.

22 Q. Dr. Lyter, to be clear, there were
23 exhibits attached to this declaration, but I've
24 only provided to you as Lyter 1 just your
25 declaration. Mr. Southwell is correct.

1 Lyter

2 A. That's right.

3 Q. Okay. Now, how long have you been
4 analyzing writing inks, Dr. Lyter?

5 A. Since January of 1975.

6 Q. So my math, that's more than 30 years;
7 correct?

8 A. Yes.

9 Q. And you have a Ph.D. in what field
10 precisely?

11 A. Analytical chemistry.

12 Q. Do you know how long Gerald LaPorte has
13 been analyzing writing inks?

14 A. No, I do not.

15 Q. And can you tell us if there is an ASTM
16 standard for ink age determination?

17 A. There are two ASTM standards that
18 relate to the analysis of writing inks. One of
19 them deals with the comparison of writing ink
20 samples, and the other one deals with the
21 identification of writing ink formulations. The
22 only one that deals in way with aging is the one
23 that allows for the identification of ink and
24 therefore determination of commercial
25 availability.

1 Lyter

2 Q. Does that ASTM standard cover the type
3 of ink age determination that you perform?

4 A. I certainly do the analysis that's
5 covered in the ASTM standard that relates to
6 identification of ink formulations and therefore
7 dating by commercial availability.

8 Q. And that test that you perform is not a
9 dynamic test, is it?

10 A. That particular standard does not
11 relate to any dynamic test.

12 Q. Right. My point is the testing that
13 you perform -- well, can you describe for me --
14 very briefly summarize the name of the type of
15 testing you do for ink age determination?

16 A. There are a variety of tests that I
17 perform that relate to the aging of ink samples.
18 One of them would be the one defined in that
19 standard that relates to the identification of a
20 particular, in essence, make and model of ink
21 which would allow for determination of commercial
22 availability.

23 It also includes detection of dating
24 tags, which are unique components that have been
25 added to the ink to identify a particular year of

1 Lyter

2 manufacture.

3 And then there are several dynamic
4 methods that look at either the extractability of
5 the ink or the quantitative measurement of various
6 volatile or semivolatile components.

7 Q. Okay. And is there a standard, an ASTM
8 standard, for dynamic testing of ink age?

9 A. I don't believe so.

10 Q. Do you know why that is or do you have
11 an opinion as to why that is?

12 A. Well, the mechanism by which ASTM
13 generated standards was by receiving information
14 from various working groups. I think one of them
15 was called SWGDOC, S-W-G-D-O-C, which was the
16 scientific group for document examination.

17 And at the present time that group is
18 no longer providing information to ASTM, so that
19 they would not be in a position to generate any
20 standard methods or standard guides that would
21 deal with the dynamic analysis of writing inks.

22 Q. Are any of the defendants' experts in
23 that group?

24 A. I don't know.

25 Q. Are you in that group?

1 Lyter

2 A. No, I'm not.

3 Q. Now, are you aware of the type of ink
4 age testing that Gerald LaPorte performed in this
5 case?

6 A. If you're talking about the measurement
7 of phenoxyethanol, yes. I don't recall
8 specifically what Mr. LaPorte did in this matter.

9 Q. Well, no, I'm focusing on -- and for
10 the court reporter's benefit, we'll just call it
11 the PE test. Is that fair enough, that we'll both
12 understand each other what we're talking about
13 when we refer to LaPorte's test?

14 MR. SOUTHWELL: Objection. Are you
15 referring to it generically or are you
16 referring to it as LaPorte's test? I think
17 it's not clear.

18 MR. BOLAND: No, I meant I'm just going
19 to refer to it as the PE test.

20 Q. Is that an accurate way to sort of
21 summarize the type of test that LaPorte did in
22 this case?

23 A. Well, the literature describes a
24 variety of methods by which 2-phenoxyethanol,
25 which we've called PE, is measured and how that

1 Lyter

2 can be related to the age of writing inks. But I
3 don't know specifically the methodology that was
4 used by Mr. LaPorte in this case or in any other
5 case, for that matter, regarding the measurement
6 of PE.

7 Q. Are you aware of that testing method,
8 before your work in this case, where some experts
9 are out there measuring PE as a method of
10 determining the age of ink?

11 A. I'm certainly familiar with what is in
12 the literature regarding the measurement of PE as
13 a way of determining the age or relative age of
14 writing inks.

15 Q. And in this case it's true that you did
16 not attempt to do that type of a test measuring
17 PE -- correct? -- in this case?

18 A. That's correct, I did not.

19 Q. Have you attempted that test in prior
20 cases?

21 A. I do use a methodology for the
22 measurement of the amount of phenoxyethanol in
23 writing ink samples as a way of determining the
24 age of that writing.

25 Q. Have you done that as part of your work

1 Lyter

2 as an expert witness in prior cases?

3 A. Yes.

4 Q. Do you use the same method as Gerald
5 LaPorte when you're doing that type of PE testing?

6 MR. SOUTHWELL: Objection to the form,
7 calls for speculation.

8 A. I don't know. I don't know what
9 Mr. LaPorte uses.

10 Q. Can you describe briefly what you do --
11 what kind of measurements you take of PE when you
12 performed that test in prior cases? How do you do
13 your test?

14 A. I basically use multiple samples, at
15 least two different samples, from an area of
16 writing and an additional two samples that would
17 be artificially aged by placing them in an oven
18 for a period of time.

19 And then I extract the ink with a
20 particular solvent that contains an internal
21 standard. And then I measure the amount of
22 phenoxyethanol as well as the internal standard
23 using a gas chromatograph/mass spectrometer, or
24 abbreviated GC/MS.

25 And by running standards of the

1 Lyter

2 phenoxyethanol at various concentrations, I can
3 quantify the amount of phenoxyethanol present in
4 the samples and then measure the difference in the
5 amount of PE based on the fact that one set of
6 samples has not been altered or affected by the
7 heating process and the other set has.

8 That provides me with a delta P in a
9 percentage that is related to how much of the
10 phenoxyethanol has been driven off by the heating
11 process, and it relates to the amount that was
12 there. And the percentage that's been driven off
13 is related to the age of the writing.

14 Q. And is this a method -- when did you
15 first start using this method in your career that
16 you just described?

17 A. It's been a number of years. I don't
18 recall specifically when I started.

19 Q. And do you know Valery Aginsky,
20 Dr. Valery Aginsky?

21 A. Yes, I do.

22 Q. And are you aware whether he uses this
23 method as well, the one you just described, or
24 something similar to it?

25 A. I know that he has published articles

1 Lyter

2 that describe methods that are very similar to
3 this.

4 Q. And in this case you did not use the
5 method that you just described to test the age of
6 the ink; is that correct?

7 A. That is correct.

8 Q. Why didn't you use it?

9 A. I didn't have enough sample.

10 Q. When did you do your testing and
11 when -- of the ink?

12 A. The examination of the documents took
13 place in July of 2011 and I believe again in
14 August of 2011, so that the testing would have
15 been done shortly after that time period; I don't
16 recall specifically.

17 Q. And was it July of 2011 when you
18 determined you did not have enough samples to do
19 the PE testing that you just described?

20 A. Well, after the initial examination of
21 the document where it was clear that the ink line
22 had been deteriorated and that the amount of
23 sample available would be somewhat less than what
24 might have normally been available, in particular
25 from some of the smaller amounts of writing like

1 Lyter

2 the initials on the "work for hire" document, the
3 first page, or even the interlineation on that
4 first page.

5 I was at that point questioning whether
6 there would be sufficient sample to be able to do
7 tests for phenoxyethanol using the methodology and
8 based on the equipment configuration that I have.

9 Q. Now, at some point after July 2011 --
10 in fact it's within the exhibit you have in front
11 of you, Lyter 1 -- you submitted a declaration in
12 part asking the court or justifying to the court
13 why more samples needed to be taken from the
14 document; correct?

15 MR. SOUTHWELL: Object to the form.

16 A. I'm reviewing Lyter 1. Just one
17 second.

18 Q. I'm looking at the bottom of page 3,
19 paragraph 8, it looks like, where you start saying
20 what samples you need.

21 A. Yes, and I forget your initial
22 question.

23 Q. I'm just pointing out that after July
24 2011 there was a time when you -- you drafted this
25 declaration, and in part of this declaration it's

1 Lyter

2 indicating additional samples that the experts
3 would require, as it says on page 3 there;
4 correct?

5 A. Yes.

6 Q. And were those additional samples being
7 sought so you could perform the PE testing that
8 you had previously described in an earlier
9 question?

10 A. No. There was not sufficient sample
11 available for me to perform the PE testing.

12 Q. Can you clarify for me was it -- I
13 thought you said -- and maybe I'm wrong -- in July
14 of 2011 the samples taken then, there were not
15 enough -- there were not sufficient samples for
16 the PE testing. Is that accurate or did I
17 misunderstand you?

18 A. Well, it's true, but it's also true
19 that at no point were there sufficient number of
20 samples for me to conduct PE testing based on the
21 methodology that I use and the instrument
22 configuration that I have.

23 Q. How many samples do you require to do
24 the testing methodology you use regarding PE?

25 A. Each of the samples that I need would

1 Lyter

2 contain eight of the little microplugs. And since
3 I need two samples that would be unheated and two
4 samples that would be heated, that will be 32
5 microplugs from any one area of writing.

6 Q. Why do you need so many?

7 A. The instrument that I have is set up
8 with an automatic sampler, and the automatic
9 sampler requires the amount of volume of liquid in
10 each of the samples to be of a certain quantity.

11 And in order to be able to measure the
12 amount of PE in that quantity of liquid, the
13 number of hole punches needs to be increased. And
14 I found that the minimum number that will provide
15 the ability to quantify the amount of PE in all
16 instances is eight.

17 Q. What machine are you talking about that
18 you need that many samples to properly run the
19 test?

20 A. Well, the machine I use is a GC/MS, but
21 it has an automatic sampler on it instead of
22 simply a manual injection.

23 Q. If you were using manual injection,
24 would you be able to perform the PE test that you
25 described with less samples than the 32 you've

1 Lyter

2 just described?

3 A. Yes.

4 Q. Now, in paragraph 9 of Lyter 1 -- it's
5 on page 34. You see that paragraph?

6 A. I do.

7 Q. What are you referring to in the phrase
8 written there where it says "extremely sensitive
9 and precise chemical testing"? What test are you
10 referring to?

11 A. Well, all of the tests that I do are
12 precise and extremely sensitive. Thin-layer
13 chromatography is one of them. I can do TLC
14 densitometry. That's another. It is possible
15 that GC/MS could be used, but there are
16 limitations to that.

17 Q. You're aware that a second round of
18 samples was approved by the court?

19 A. Well, I know that I took samples,
20 additional samples, in August of 2011.

21 Q. What testing did you perform on those
22 additional samples?

23 A. I did some additional thin-layer
24 chromatography.

25 Q. Is that all? Anything else?

1 Lyter

2 A. No. I didn't do any additional testing
3 on those samples because of the results of that
4 additional thin-layer chromatography test.

5 Q. And what were those results that caused
6 you to not do any further testing?

7 A. They're the results that are described.
8 In my report I believe it's on page 7 where we're
9 talking about the TLC results.

10 Q. And just can you summarize for me what
11 those results were?

12 A. The samples of ink that were taken from
13 the written notations on the "work for hire"
14 document, both the interlineation, the initials,
15 the signatures, and the dates, the sample -- the
16 samples were so deteriorated that the results of
17 the TLC analysis were not able to be used either
18 for comparison purposes or for any other analyses,
19 such as determining the ink formulations that
20 might have been used or looking at the relative
21 age of the ink through measuring of extraction
22 characteristics.

23 Q. And did you get similar results from
24 the testing that you did in July?

25 MR. SOUTHWELL: Objection to form.

1 Lyter

2 A. I don't recall if I did testing in
3 July, waiting because of the possibility of
4 getting additional samples. I just don't recall.

5 Q. Do you have your notes with you that
6 might refresh your memory on that?

7 A. No, I do not.

8 Q. Did you bring them with you to New
9 York?

10 A. Yes.

11 Q. Where are they located now?

12 A. They're in another conference room.

13 MR. BOLAND: Okay. Can we just take a
14 brief break so that Dr. Lyter can go grab his
15 notes, please?

16 MR. SOUTHWELL: What is your intention
17 with respect to the notes? As you know, this
18 is the subject of an ongoing dispute that you
19 have now raised with the court.

20 MR. BOLAND: I'm going to ask him to
21 read his notes and refresh his recollection
22 about what testing he did back in July.
23 That's all.

24 MR. SOUTHWELL: Okay. I mean, you want
25 to keep going and at the next break he can get

1 Lyter

2 them or...

3 MR. BOLAND: Is it a long walk back and
4 forth to where his notes are? If it's going
5 to take him 20 minutes, we can do it at a
6 break.

7 MR. SOUTHWELL: No, it's not a long
8 walk. We'll take a break now then.

9 MR. BOLAND: Very well.

10 (Recess taken from 10:32 to 10:35.)

11 Q. Dr. Lyter, can you hear my question
12 still? I'm just checking the technology to make
13 sure we're still connected.

14 A. Yes, I can hear you fine.

15 Q. Do you have your notes in front of you
16 from the testing that you did in July of 2011?

17 A. Yes, I reviewed that particular
18 testing.

19 Q. And can you tell us now what tests you
20 performed in July of 2011?

21 A. I did in fact do thin-layer
22 chromatography of the interlineation from page 1
23 of the "work for hire" document and the signatures
24 and dates appearing on page 2 of the "work for
25 hire" documents.

1 Lyter

2 And the results were as listed in my
3 report in that those analyses were not conclusive.
4 It was clear that the ink lines had deteriorated,
5 and so it was not possible to determine whether
6 those particular entries were similar or different
7 from each other because of the degree of
8 deterioration.

9 Q. When you say "similar or different from
10 each other," do you mean the ink formulations
11 being similar or different from each other?

12 A. Yes, the actual results were such that
13 they were uncharacteristic of what we expect to
14 see when we examine ballpoint ink with thin-layer
15 chromatography.

16 Q. Do you have an image of the two-page
17 contract you analyzed within your notes?

18 A. I'll have to check.

19 Q. Very well.

20 (Pause.)

21 A. I have what appears to be an image of
22 the two pages of the "work for hire" contract, but
23 I'm not -- I don't know where these images came
24 from, so I don't know what they're associated
25 with.

1 Lyter

2 MR. BOLAND: If the court reporter
3 could hand to Dr. Lyter a copy of his report.
4 It should be the document in front of him that
5 was filed in this case. I'm looking for the
6 document number. Document 328 should be
7 stamped across the top of it.

8 THE WITNESS: Yes, I have that.

9 MR. BOLAND: If that could be marked
10 Lyter 2, just for convenience.

11 (Lyter Exhibit 2, redacted report of
12 Lyter, marked for identification.)

13 Q. Dr. Lyter, could you just describe what
14 that appears to be for the record?

15 A. Lyter 2 is labeled as Exhibit D. It
16 says that there are 13 pages. It appears to be my
17 report, and attached to it is a copy of my CV.
18 And it's dated March 24th, 2011.

19 Q. Does this appear to be the report that
20 you submitted to the defendants for them to then
21 eventually file in this case?

22 MR. SOUTHWELL: Mr. Boland, just so the
23 record is clear, this is the redacted version
24 that was publicly filed, just so that that's
25 clear.

1 Lyter

2 MR. BOLAND: Alex, I'm having a hard
3 time hearing you.

4 MR. SOUTHWELL: I just wanted the
5 record to be clear that this is the redacted
6 version which was filed, just so that that's
7 clear.

8 MR. BOLAND: Yes, fair enough.

9 Q. Dr. Lyter, we've had this incident --
10 not incident -- this situation with several other
11 witnesses. And to be clear, so there's no
12 misunderstanding, the report you submitted to the
13 defendants based on some court rulings, they
14 redacted portions of it out that weren't allowed
15 to be publicly filed.

16 So I understand that this report will
17 have the word "redacted" all over it in different
18 places and that those are not things that you put
19 into the report?

20 But other than the redacted sections
21 that were redacted by the lawyers, does the rest
22 of it appear to be the report you filed in this
23 case in March of 2011?

24 A. Yes, it does.

25 Q. Could you go to page 10 of the report,

1 Lyter

2 please. And when I'm using the page numbers,
3 Dr. Lyter, I'm using the page number in the upper
4 right-hand corner of the page, the thing that's
5 been stamped by the court.

6 A. Okay. Is that the page that bears my
7 signature?

8 Q. Yes.

9 A. Okay, I have it.

10 Q. Do you see paragraph 2 there that you
11 talked about the deterioration of the "work for
12 hire" document?

13 A. Yes, paragraph 2 says, The intentional
14 deterioration of the "work for hire" document
15 thwarted my ability to assess the authenticity of
16 the questioned documents using TLC analysis and
17 ink identification and relative aging
18 methodologies.

19 Q. And when did you make that
20 determination? Was that in July of 2011 or
21 sometime later?

22 A. My initial suspicion was in July. I
23 believe that I actually comment. I'm looking for
24 the -- I guess on page number 3 where it says my
25 initial observations I comment on the

1 Lyter

2 deterioration aspect and that I was concerned
3 about what might be the results of that analysis.

4 Q. Dr. Lyter, could you look at page 9 of
5 that exhibit. There's -- the first full paragraph
6 on page 9 which starts with the words "the results
7 of the TLC analysis." Do you see that?

8 A. Yes.

9 Q. When you say in this paragraph the very
10 next sentence that you were unable to obtain
11 satisfactory TLC results and you talk about the
12 document was deteriorated in a way that changed
13 the chemical composition of the dye components in
14 the ink, can you list what are the dye components
15 in ink?

16 A. You mean in this particular ink?

17 Q. I guess what I'm asking is PE is not
18 considered a dye component; it's considered a
19 solvent; right?

20 A. Yes, it's characterized as a solvent or
21 semivolatile component.

22 Q. And is it your position that the
23 deterioration of the document had no effect on the
24 PE that might have been in the ink?

25 A. I don't know. That's not something

1 Lyter

2 that I tested.

3 Q. Is there a test to do to determine
4 if -- well, how would you know if the PE in the
5 ink was somehow damaged by the deterioration of
6 the document? What test would you run to
7 determine that?

8 A. You've asked me two questions. The
9 first -- the answer to the first question is that
10 if you did a test that normally is able to detect
11 and quantify PE and you don't find any of it there
12 and you know it's supposed to be there, then
13 there's been deterioration of it.

14 On the other hand, the test that is
15 most listed in the literature as the appropriate
16 method for both detecting and quantifying PE is
17 GC/MS.

18 Q. Okay. My question is if you use GC/MS
19 and you detected some quantity of PE in this
20 document in this case, how would you then
21 determine if the quantity you detected was
22 accurate given that the document was, as you put
23 it, deteriorated.

24 A. If the PE had been deteriorated by the
25 condition of the document, then you wouldn't be

1 Lyter

2 able to detect it.

3 Q. Okay. Let's talk about the word
4 "deteriorated," then, because I'm not
5 understanding it. Are you saying it's either an
6 all-or-nothing proposition, that if a document is
7 slightly deteriorated, it will eliminate all the
8 PE, you won't be able to detect any?

9 MR. SOUTHWELL: Object to the form.

10 A. When you use the word "deteriorated,"
11 I'm referring to it and using it in the manner
12 that describes initially what the appearance is,
13 meaning that the written line was deteriorated
14 because it no longer contained a complete coverage
15 of ink from within the confines of the lines that
16 the ballpoint pen would lay down.

17 And number two, the appearance of the
18 line, in addition to there not being complete
19 coverage, what was there had changed. It had
20 either become discolored and that it was now
21 yellow to brown-colored as opposed to black
22 colored.

23 And number two, because of the testing
24 I performed that would measure what dye components
25 were present and how those dye components reacted

1 Lyter

2 to thin-layer chromatography, it gave me results
3 that indicated that the dye components had in fact
4 been impacted by whatever method was used to cause
5 the deterioration on the document.

6 And it -- I don't -- it would be my
7 opinion that if we're dealing with a semivolatile
8 component such as PE that if you can measure it,
9 then you know that there's some of it there. If
10 you measure a difference that is present after
11 you've artificially aged or heated a sample, then
12 you know that there was a quantity of PE that was
13 present that was higher than what would be present
14 in writing that would be greater than two years
15 old.

16 So the deterioration that I was talking
17 about was evident with the dye components. I
18 didn't do any testing for PE, so I don't know what
19 that testing would have shown.

20 Q. What I'm saying is when you use the
21 phrase in that paragraph "deteriorated in a way
22 that changed the chemical composition of the dye
23 components" is it your position that that
24 deterioration that was sufficient to change the
25 chemical composition after the dye components,

1 Lyter

2 would it or would it not also change the amount of
3 PE in the sample, if you know.

4 A. Well, I know that dyes are susceptible
5 to photodegradation based on the structure that
6 exists. I'm not aware that PE is susceptible to
7 photodegradation.

8 So from that standpoint it would not be
9 surprising to find dyes that would be altered
10 chemically or altered so that when you examined
11 for them chemically they would give you skewed
12 results versus the fact that you might be able to
13 look at PE and get a perfectly reliable
14 measurement of how much is there.

15 Q. Is there any way to know whether PE --
16 have you seen anything in the literature whether
17 PE levels are affected by UV light exposure of a
18 document that has ink on it with PE in it?

19 A. I don't know of any literature that
20 addresses that issue.

21 Q. Do you know of any way -- outside of
22 the literature, do you know of any way to figure
23 that out, whether PE has been deteriorated as a
24 result of photodegradation?

25 A. Well, clearly there are

1 Lyter

2 experimentations that can be performed.

3 Q. Do you know if any experts in your
4 field have ever done such experiments and
5 published their results?

6 A. I'm not aware, as I sit here today, of
7 any such results. It's not to say that they're
8 not published; I just don't know of them.

9 Q. Have you heard of the term "the ink
10 matrix" before?

11 A. Yes.

12 Q. And how would the deterioration of the
13 document that you observed and you reported in
14 your report, how would that have changed the ink
15 matrix?

16 A. Well, what I mean when I say "ink
17 matrix" is basically the resin component of the
18 ink. And my knowledge of resins would not
19 indicate that they are going to be very
20 susceptible, if at all, to photodegradation.

21 Q. Can you describe the sort of layers of
22 the ink matrix or is it just one thing, the
23 resins, as you described?

24 A. Well, when I talk about the resins, I'm
25 talking about the -- basically the component of

1 Lyter

2 the ink into which all of the other components are
3 incorporated, which lays on top of the paper when
4 you're talking about ball pen inks.

5 Q. Is PE part of that ink matrix?

6 A. Well, all of the components are
7 incorporated into the matrix. In other words, the
8 resins basically keep everything together.

9 Q. If that matrix gets damaged somehow,
10 let's say through UV degradation or some other
11 deterioration, can PE be released out of that
12 matrix which ordinarily would be trapped in that
13 matrix?

14 A. I don't know.

15 Q. Is that possible?

16 MR. SOUTHWELL: Objection.

17 A. Anything is possible. Without actually
18 seeing some research data or performing some
19 experimentation, I wouldn't know. It would be
20 speculation to say that it was or wasn't.

21 Q. Could you look at the letter P that's
22 on the first page of the Facebook contract that
23 you have there connected to your notes in the
24 initials PC on the first page.

25 A. Okay.

1 Lyter

2 Q. And would you agree that the ink in
3 that P is darker than the ink on the
4 interlineation itself or no?

5 MR. SOUTHWELL: I'm going to object to
6 this line of inquiry if you're not -- I mean,
7 it's not clear --

8 MR. BOLAND: I can't make out what
9 you're saying, Alex. You're far from the
10 microphone, I guess.

11 MR. SOUTHWELL: I don't know. I'm
12 right in front of it.

13 I'm going to object to this -- the way
14 that you're conducting this inquiry, because
15 it's not -- I'm not sure what you're asking
16 him about on a document that's -- I mean, if
17 you want to use one of the scans that's in the
18 record, we could get a copy of that, we can
19 put it up on the screen.

20 Asking him to look at something and
21 comment on the differentiation of the inks
22 without his knowledge -- as he said, he's not
23 sure what the image is that he has. I just
24 think that it's improper.

25 Q. Well, Dr. Lyter, can you comment on the

1 Lyter

2 apparent darkness of the ink in the letter P in
3 the initials PC compared to the rest of the
4 interlineation? What's your opinion of that?

5 A. I can't tell much from the copy that I
6 have because I believe that it's smaller than the
7 normal -- in other words, it's not a one-to-one
8 copy, number one. And number two, it's -- I'm not
9 sure when it was taken. It almost appears like
10 there might be -- that it was taken after there
11 were hole punches taken, sampling of it.

12 I know that there were varying degrees
13 of ink coverage on various parts of the writing
14 that appeared on the "work for hire" document.
15 Specifically I don't have a recollection about the
16 initials PC.

17 Q. This conclusion we were just talking
18 about on page 10 of your report, did you know this
19 or did you reach this conclusion about the
20 deterioration and the change in the chemical
21 composition of the dye components after the July
22 testing?

23 MR. SOUTHWELL: Objection, asked and
24 answered.

25 A. I certainly had performed some

1 Lyter

2 thin-layer chromatography on some samples from the
3 "work for hire" document after the July sampling
4 in 2011, and at that point in time what I saw
5 indicated deterioration.

6 After getting additional samples in
7 August and doing additional testing, those results
8 were confirmed and expanded to include all of the
9 writing on the "work for hire" document.

10 Q. Can you please describe why you could
11 not perform relative aging analysis as a result of
12 that deterioration?

13 A. Relative aging is actually a technique
14 by which the amount of color that is extracted in
15 the solution is measured. And when you can see
16 that the amount of color is being unreliably
17 displayed on a thin-layer chromatograph, then it's
18 not appropriate to be able to or to try to measure
19 quantitatively that amount of color.

20 There's just too much going on, too
21 much that's been affected by whatever method that
22 was used to deteriorate the ink to be able to try
23 to measure something quantitatively and use,
24 therefore, as a measure of the age.

25 Q. Do you know who Erich Speckin is?

1 Lyter

2 A. Yes.

3 Q. Are you aware whether he uses the ink-
4 aging method that you use regarding
5 extractability? Does he use that method too?

6 A. You're talking about relative aging?

7 Q. Yes.

8 A. I believe he does, yes.

9 Q. Going back a second, when you talk
10 about the GC/MS machine, there was manual
11 injection and I think automatic injection. Do you
12 remember that topic we were talking about?

13 A. Yes, I do.

14 Q. Why don't you use manual injection?

15 A. The instrumentation that I use is at
16 Duke University. I rent time on it. I do not own
17 it. And it is set up to use automatic sampling,
18 and that's the way the instrument is set up.

19 Q. What's your opinion of the use of
20 manual injection as compared to the automatic
21 sampling that you just talked about?

22 A. There's nothing wrong with manual
23 injection. A lot of individuals and/or
24 organizations don't decide to spend the additional
25 funds necessary to buy an automatic sampler and/or

1 Lyter

2 may not do sufficient number of samples so that
3 the automatic sampler is not required.

4 But both methods of injection will give
5 reliable results.

6 Q. Have you opposed Gerald LaPorte in
7 previous cases regarding ink aging?

8 A. We have been retained on opposite sides
9 of matters. I don't know that those issues have
10 revolved around ink aging. I can only recall one
11 matter, and I don't believe there was any ink
12 aging performed in that case.

13 Q. Would you agree with the statement
14 that -- well, is it appropriate to describe the
15 relative ink aging that you do most commonly as
16 accelerated aging with rate of extraction?

17 A. No.

18 Q. What is that method or is that even a
19 method that you've heard of?

20 A. Well, I know what accelerated aging is,
21 and I know what the rate of extraction is. It
22 might be best to define those. Rate of extraction
23 and extent of extraction are different measurement
24 methodologies. In other words, they're different
25 parameters that are being measured. They both

1 Lyter

2 relate to how easily an ink sample is dissolved in
3 a solution.

4 Relative aging will use either one or
5 both of those measurement methodologies and
6 compare various writings, some of them being
7 questioned in nature as far as when they were
8 prepared and others being known as to when they
9 were prepared.

10 Accelerated aging as a technique will
11 use either the rate of extraction or the extent of
12 extraction and compare two different samples from
13 the same writing, and that writing is questioned
14 as far as its age.

15 One of the samples is not treated in
16 any way, and the other sample is heated. And the
17 conclusions are derived by looking at how those
18 two samples differ. And if they provide differing
19 results, in other words, different rates of
20 extraction or different extents of extraction,
21 then they are -- the writing on the document is
22 considered to be less than a certain number of
23 months or years old.

24 It's not relative aging because it has
25 no controls. There's nothing other than the

1 Lyter

2 questioned writing that's being examined. And
3 that is not a procedure that I use.

4 Q. Do you use a procedure that measures
5 the extractability of some components of ink to
6 try and determine their age?

7 A. Yes, I do relative aging. In other
8 words, in order for me to measure the age of
9 writing by measuring an extraction
10 characteristic -- and the two extraction
11 characteristics are rate of extraction and extent
12 of extraction -- I have to have some known dated
13 writing, in other words, writing that I know was
14 done on a particular date, by which I can compare
15 that with the questioned writing. And that's
16 known as relative aging.

17 Q. And would you agree with the statement
18 that other than you Mr. Speckin is the only other
19 person in the world who performs that kind of
20 measurement of extractability?

21 MR. SOUTHWELL: Object to the form.

22 A. I don't know if that's a correct
23 statement or not.

24 Q. Would you agree with the statement that
25 that method you just described that you use is not

1 Lyter

2 scientifically reliable?

3 A. No.

4 Q. And if Mr. LaPorte has said that in a
5 prior deposition, you would disagree with his
6 statement on that point?

7 MR. SOUTHWELL: Objection,
8 mischaracterizes.

9 A. I would have to know exactly what he's
10 saying and why, because I know that what's in the
11 literature and I know that some of the stuff
12 that's in the literature is not correct.

13 Q. Give me an example of something that's
14 not correct in the literature. What do you mean
15 by that?

16 A. There's an article that describes some
17 experimentation that was done involving relative
18 aging, which is the extraction methodology. And
19 some of the conclusions that were reached were
20 based on data that clearly provided the opposite
21 results to the conclusions that were reached. The
22 conclusions said the technique did not work; the
23 data clearly illustrated that it did.

24 Q. Do you recall who the authors of that
25 published article were?

1 Lyter

2 A. I don't remember. It seems to me they
3 were from Germany, but I don't recall.

4 MR. BOLAND: Alex, at this point, I
5 would like to take about a ten-minute break,
6 if we could, and the court reporter and
7 everyone can run to the restroom or whatever
8 they need to do.

9 MR. SOUTHWELL: All right.

10 (Recess taken from 11:09 to 11:23.)

11 Q. Dr. Lyter, I asked you some questions
12 before about the GC/MS machine, and you responded
13 that you use one at Duke University; right?

14 A. That's correct.

15 Q. And it's not a machine you own; you
16 sort of just rent time on it, I guess, is the way
17 to say it; right?

18 A. That's correct.

19 Q. And that machine is set up to do auto
20 sampling as opposed to manual injection for
21 purposes of PE testing; right?

22 MR. SOUTHWELL: Objection to form.

23 A. Well, it's set up with an automatic
24 sampler for all kinds of analyses, and as opposed
25 to having manual injection.

1 Lyter

2 Q. An auto sampler is an add-on for that
3 GC/MS machine; correct?

4 A. Yes, it is. It's made to be used on
5 it, but it's not something that has to be
6 purchased when the machine is purchased.

7 Q. And it's true, sir, you could have
8 chosen at any time, using that machine, to have
9 performed a manual injection, if you wanted to?

10 A. No, I could not. It was under the
11 control of Duke University, and the configuration
12 of the equipment was to be used as it is.

13 Q. I guess my point is if you got the
14 permission from Duke University, the machine --
15 the machine itself in the abstract was capable of
16 being switched over to manual injection; true?

17 A. Yes, that's right, the automatic
18 sampler can be taken off.

19 Q. And you never asked Duke to do that as
20 part of your testing or thoughts of testing in
21 this case?

22 A. I had asked them in previous matters to
23 do it, and they said no.

24 Q. Do you need more samples when you're
25 using an auto sampler as opposed to if you did

1 Lyter

2 manual injection or used manual injection?

3 A. The automatic sampler requires a
4 certain volume of liquid in order to reliably
5 inject a certain amount. And when you increase
6 the amount of volume in your sample, you have to
7 increase the amount of analyte, which in this case
8 were the ink samples.

9 And so yes, it requires a larger number
10 of microplugs from any one area of writing that's
11 going to be analyzed.

12 Q. Does the use of more samples provide
13 you with more accurate results?

14 A. No, I don't believe it has anything to
15 do with accuracy. It's just you're -- you're
16 increasing the concentration of the analyte within
17 the volume to the point where it is most
18 measurable and reliably measured.

19 Q. Are you aware that Mr. LaPorte in his
20 testing only used two samples from the document to
21 perform his PE test?

22 A. I'm not familiar with the specifics of
23 his analysis, so I don't know.

24 Q. And when I said "samples," I should
25 have used the technical term. I meant two plugs

1 Lyter

2 from the document.

3 Were you aware of that or not?

4 A. No, I wasn't aware of that.

5 Q. Have you read his report in this case
6 and the results that he has in his report?

7 A. I have read his report.

8 Q. Do you agree with his results about the
9 ink is two years old or newer?

10 A. I neither agree nor disagree. I
11 haven't reviewed his data, so I don't have an
12 opinion.

13 Q. Isn't all the data you need to assess
14 his conclusions within his report?

15 A. Well, I would have to review his report
16 to see if it contains any data.

17 Q. You don't recall, when you read his
18 report, if it contained data necessary to support
19 his conclusion?

20 A. No, I frankly don't.

21 Q. What kind of data would be necessary to
22 be in that report to -- for you to review to
23 verify his conclusions? I'm not understanding
24 what kind of data you mean.

25 MR. SOUTHWELL: Mr. Boland, can you

1 Lyter

2 just be more specific? Are you referring
3 specifically to PE conclusions or all of his
4 conclusions?

5 MR. BOLAND: I'm just asking the
6 witness if he agrees with the conclusions in
7 LaPorte's report, and he said he couldn't
8 agree or disagree. And I asked -- and he said
9 he would need to review the data.

10 And now I'm asking him what data would
11 he need to review in order to determine if he
12 agrees or disagrees with any of the
13 conclusions in LaPorte's report.

14 A. Well, I would have to see any images
15 that he may have taken. I would have to see any
16 examination results that he had, whether they were
17 results of a visual examination, whether they were
18 results from examination by VSC, whether they were
19 thin-layer chromatography results, or whether they
20 were GC/MS results.

21 Q. About how many cases in the past have
22 you done PE testing and produced a report for a
23 client?

24 A. I don't know. I don't remember.

25 Q. Well, can you ballpark it for me?

1 Lyter

2 Would it be more than a hundred times?

3 A. No, probably less than that, but it's a
4 guess.

5 Q. Wouldn't you agree with me that if
6 someone's doing testing of ink and they're using
7 75 percent less number of plugs as part of their
8 testing that that test would be -- that there's a
9 higher potential for human error in that test when
10 they're using so few plugs?

11 MR. SOUTHWELL: Objection to form.

12 A. No, I wouldn't agree. You'd have to
13 know more specifically about what the specific
14 methodology was and where the particular points of
15 error may occur. And then also there's the
16 question of the competency of the individual doing
17 the test.

18 Q. Do you have an opinion as to whether
19 Gerald LaPorte is a competent ink analyst using PE
20 testing?

21 A. I have no reason to believe that he's
22 not.

23 Q. And what causes you to decide whether
24 you're going to use PE testing on ink or not in a
25 given case?

1 Lyter

2 A. Well, in this case the first
3 consideration is the amount of ink that's
4 available; secondly, the circumstances surrounding
5 the document regarding the purported date of
6 preparation and the supposed date of preparation
7 relative to when the examination was done; and
8 then of course the particular kind of ink that's
9 used, because a lot of inks -- or at least a fair
10 number of them do not contain PE.

11 Q. Did you consider using PE in this case
12 when you were first retained? PE testing, I mean.

13 A. It is certainly one of the types of
14 testing that is in my repertoire. As to whether
15 it was going to be used or not depended on what
16 the condition of the documents were and what kind
17 of inks were being used.

18 Q. So did you assess those two factors you
19 just mentioned in this case before deciding what
20 ink age testing to do?

21 A. As I mentioned in my report, because of
22 the condition of the document, it was clear to me
23 that there would be insufficient sample for me to
24 do PE testing, given the methodology that I use
25 and the instrument configuration that I have.

1 Lyter

2 Q. And what methodology do you use? How
3 do you distinguish your methodology from
4 Mr. LaPorte's?

5 A. I don't know what Mr. LaPorte's
6 methodology is. I don't think that I've ever seen
7 it in writing or seen him describe specifically
8 step by step what his methodology is.

9 Q. Do you recall a paper that Mr. LaPorte
10 wrote in 2004 describing the PE methodology he
11 uses?

12 A. No.

13 Q. Have you ever seen his methodology
14 published by anyone in any of the scientific
15 literature?

16 A. I don't know. I certainly am aware of
17 some of the articles that he's written, and I know
18 he's addressed measuring PE by GC/MS from
19 ballpoint ink samples. But I don't know how that
20 particular article relates to the methodology he
21 uses in casework.

22 Q. Would you agree that his method has or
23 has not been peer-reviewed?

24 MR. SOUTHWELL: Objection as to form.

25 A. I don't know one way or the other. I

1 Lyter

2 would have to see what particular article he
3 references as containing his methodology.

4 Q. But as you sit here today, you have
5 never seen such an article?

6 MR. SOUTHWELL: Objection to the form.

7 A. I've never had somebody point out to me
8 an article that says this is the method that Jerry
9 LaPorte uses. Therefore I don't know whether the
10 methodology that he uses has been peer-reviewed or
11 not.

12 Q. Okay. Well, let's focus on your
13 methodology, the two points you made, the
14 methodology and the condition of the document,
15 which were decision points on why you didn't do PE
16 testing.

17 What about your methodology as applied
18 to the document in this case caused you to not do
19 PE testing?

20 A. There was nothing about the methodology
21 that caused me not to do PE testing. Once I could
22 not get past the sample size restriction, it
23 didn't make any difference what methodology I
24 used. I wasn't going to be able to do the
25 testing.

1 Lyter

2 Q. And what sample size restriction are
3 you referring to?

4 A. The one that I had previously described
5 where I need at least 32 hole punches of ink in
6 order to be able to analyze any one area of
7 writing.

8 Q. And when did you know you needed 32
9 plugs to perform PE testing using your sort of
10 methodology?

11 A. Well, that's -- that's the methodology
12 that I use, so even before I went into the
13 examination, I knew that I would need that much.

14 Q. Did you tell the defendants' attorneys
15 that you needed that many samples -- or plugs, I
16 should say, plugs?

17 A. I don't recall whether I did or not. I
18 just don't remember.

19 Q. Did you discuss doing PE testing with
20 the defendants' attorneys?

21 A. When? I don't recall discussing it
22 once the documents were examined. We may have
23 talked about it briefly in the very early
24 discussions regarding my involvement in this case,
25 but I don't remember.

1 Lyter

2 Q. Sir, what were you hired to do? What
3 was your understanding you were hired to do by the
4 defendants' attorneys in this case?

5 A. As I listed on my report, I was engaged
6 for the analysis of ink and paper. I was going to
7 inspect two different documents, the "work for
8 hire" document, a specifications document. And I
9 was asked to determine whether there were any
10 inconsistencies in the document and to determine
11 if I could the date or time period of preparation
12 of the document.

13 Q. Did you ever suggest to the defendants
14 that you could do PE testing if you had sufficient
15 samples from the document -- I mean the
16 defendants' lawyers?

17 MR. SOUTHWELL: I'm going to object,
18 Mr. Boland. You're calling for privileged
19 communications at this point. I mean, you can
20 probably ask it in a different way.

21 Q. Dr. Lyter, did you make it known to
22 anyone how many samples you would need to do PE
23 testing, without telling me who? Did you tell
24 anyone involved many this case how many samples
25 you would need to do testing, the 32 plugs?

1 Lyter

2 A. I don't remember that I did.

3 Q. How did you determine that you weren't
4 going to be permitted to get 32 plugs out of a
5 sample and do PE testing, then, if you didn't ask
6 anybody?

7 A. I could tell by looking at the
8 documents and the condition of the writing that
9 there were clearly areas of writing where that
10 amount of sample would not have been available,
11 given the fact that the ink line had been
12 deteriorated and that there were multiple experts
13 involved, both from defendants and plaintiffs,
14 that would desire to take samples of ink and that
15 there simply wasn't going to be enough ink
16 available.

17 Q. Can you explain to me how Gerald
18 LaPorte reached a completely different conclusion
19 that he could do PE testing in this case?

20 MR. SOUTHWELL: Objection, calls for
21 speculation.

22 A. I don't know.

23 Q. If you know.

24 A. Yeah, I don't know other than he does
25 not have the same sample size restrictions that I

1 Lyter

2 do.

3 Q. Does that change the reliability of his
4 test compared to yours?

5 A. I don't think so.

6 Q. So you could have done PE testing with
7 less samples if you had used a machine that
8 allowed manual injection; is that accurate?

9 MR. SOUTHWELL: Objection, asked and
10 answered.

11 A. Yes, that's correct.

12 Q. Are you more experienced than
13 Mr. LaPorte in doing ink age analysis?

14 A. I don't know. I certainly have more
15 years doing the testing, but I don't know
16 whether -- how you would measure that parameter.

17 Q. And using your type of PE testing, what
18 effect does storage conditions have on a document
19 and the type of -- what effect would storage
20 conditions have on PE testing results, in your
21 opinion?

22 A. You mean in general?

23 Q. Yes, the storage conditions of a
24 document, can it affect PE testing results?

25 A. Certainly if a document is stored in

1 Lyter

2 what I'll characterize as harsh conditions, it may
3 make the amount of PE that's present less than
4 what would normally be present.

5 Q. What kind of storage conditions would
6 cause that?

7 A. Well, considering the fact that part of
8 the methodology for PE testing is to artificially
9 age or heat samples, I would say exposure to
10 excessive heat conditions.

11 Q. What's the freezing point of PE,
12 Dr. Lyter?

13 MR. SOUTHWELL: Objection to form.

14 A. I don't know.

15 Q. If a document is stored at a
16 temperature that puts it at or below the freezing
17 point of PE, how would that affect the PE testing
18 result?

19 A. I wouldn't think it would affect it at
20 all.

21 Q. It's your position that PE would
22 evaporate at the same rate if the document is kept
23 at a temperature where PE is at its freezing
24 point? It would still evaporate at the same rate
25 as room temperature?

1 Lyter

2 A. I believe that -- first off, I have no
3 knowledge of what PE may or may not do at
4 different temperatures because I don't know what
5 the freezing point is and I don't know what the
6 boiling point is for PE.

7 But I know that because it's a
8 component that was within a matrix that includes
9 resins and other materials that there's going to
10 be synergistic effect within that matrix that's
11 going to be different than what might occur with
12 PE just sitting in a beaker on top of a desk or
13 something.

14 Q. Well, when you test PE, you test it
15 within an ink matrix; you don't test it sitting
16 placed in a beaker. Am I right?

17 A. It depends on what test you're doing.
18 If I do a standard, yes, the PE comes directly out
19 of a beaker. But generally speaking we're testing
20 ink samples that presumably have PE in them.

21 Q. And in this case we don't know the ink
22 formulation; true?

23 A. That's correct.

24 Q. And would you agree with Gerald LaPorte
25 that we also don't know whether this ink is a

1 Lyter

2 fast-aging or slow-aging ink when it comes to PE?

3 Would you agree with that?

4 MR. SOUTHWELL: Objection to form.

5 A. I don't know what Mr. LaPorte said
6 about this ink one way or the other. I have no
7 personal knowledge as to how this ink would be
8 characterized regarding whether it's a fast aging
9 or a slow aging.

10 Q. You've heard of that terminology,
11 though, before, fast aging and slow aging, as it
12 relates to PE evaporation?

13 A. Yes, I have.

14 Q. Do fast-aging and slow-aging inks
15 generate the same test results when you do PE
16 testing with regard to them?

17 A. What samples are you talking about?
18 Are you talking about samples that are the same
19 age or purported to be the same age? I don't
20 understand your question.

21 Q. Let me give you a hypothetical.
22 Assuming we have two different inks and we agree
23 that one of them is a fast-aging ink when it comes
24 to PE evaporation and the other one is a slow-
25 aging ink, and we take each one of those pens and

1 Lyter

2 we make a mark on a piece of paper all the way
3 down the side of the piece of paper on the same
4 day for both of those inks, then a year later you
5 went ahead and ran your PE tests on those two
6 inks.

7 Would you -- do you assume that the
8 results you would get would be identical for the
9 amount of PE that's driven off by heating,
10 et cetera, or would it be different between the
11 slow-aging and the fast-aging ink?

12 A. I would expect that if you did multiple
13 samples of that ink that the actual average delta
14 P value would be different for the two writings,
15 but they would both fall within the -- or above or
16 below the appropriate threshold value that would
17 be used to determine the age of the writing.

18 Q. So it doesn't matter if you have a
19 fast-aging ink or a slow-aging ink, you're still
20 going to get an accurate estimate of how old it is
21 using PE testing?

22 A. Within certain criteria, yes.

23 Q. What criteria would those be?

24 A. You have to realize that if you have a
25 fast-aging ink you may not be able to distinguish

1 Lyter

2 between a writing that is two years old versus one
3 that's one year old, whereas with a slow-aging ink
4 you probably will be able to distinguish that.

5 Q. Have you ever heard of a thing called
6 The Merck Index, M-E-R-C-K?

7 A. Yes.

8 Q. And are you aware that The Merck Index
9 shows that PE is commonly used in bug spray and
10 hand lotion?

11 A. I don't know. I certainly haven't read
12 The Merck Index regarding PE, so I don't know what
13 it says.

14 Q. Do you know what other common household
15 products contain PE?

16 A. No.

17 Q. Now, when you were handling this
18 document during the examination, did you handle
19 the document wearing gloves or just with your bare
20 hands?

21 A. I don't remember. I think that for a
22 portion of the time I had gloves on and another
23 portion I didn't.

24 Q. The portion where you had gloves on,
25 why did you bother to wear gloves?

1 Lyter

2 A. Well, I don't remember that I did. I
3 just -- that seems to be in my mind, but I'm not
4 certain.

5 Q. And do you think it's important to
6 handle a document with gloves that you're
7 examining, if you're intending to do PE testing
8 on?

9 A. No.

10 Q. Is it possible ever that handling a
11 document without gloves could cause contamination
12 of that document as it relates to PE?

13 A. I'm not aware of any circumstances in
14 which that would be problematic. I know
15 personally I don't use lotions and stuff on my
16 hand, so that it wouldn't be a problem in that
17 regard.

18 Q. What about somebody that does use
19 lotions on their hand or bug spray that contains
20 PE, wouldn't you agree that if they handled a
21 document without gloves they could transfer PE to
22 the document?

23 A. Well, I guess that's possible. I would
24 propose that or question whether or not the amount
25 that was transferred and the form that it took

1 Lyter

2 would be problematic regarding the testing of the
3 ink. So I would look at that as being something
4 that is speculative and would need to be tested in
5 order to determine the viability of it presenting
6 any problems.

7 Q. But there's no literature on that, is
8 there?

9 A. I'm not aware of any.

10 Q. Is it fair to say that during the time
11 you were testing this document if you went to the
12 restroom or when you woke up in the morning and
13 before you came in to test you washed your hands
14 with soap? Would that be a fair assessment?

15 A. I generally have pretty good hygiene,
16 so I would guess yes.

17 Q. And do you know if the soap you washed
18 your hands with had PE in it?

19 A. I would think not, but I don't know.

20 Q. So there's another possibility: if a
21 person washes their hands in soap that has PE in
22 it that if they touch a document they could
23 transfer PE to the document. You agree that's
24 possible?

25 A. I would say you're dealing with the

1 Lyter

2 realm of possibilities and not probabilities, and
3 I tend to deal in probabilities. And as far as
4 that being very probable, I would say that it's
5 not.

6 Q. What data or studies are you pointing
7 to to base your comment that it's not probable
8 that PE could be transferred from hand soap used
9 by a person handling a document?

10 A. Just my personal experience in
11 examining documents and examining paper blanks
12 from documents, in particular from the areas on
13 the documents where people would normally handle
14 them. And I don't recall that in those instances
15 I've ever found a measurable amount of PE.

16 Q. So you've run testing of this type,
17 washing your hands with soap that had PE in it,
18 handling a document, and then seeing how much PE
19 you might have added to it? You've done that kind
20 of test?

21 A. No, I have never done a specific test.
22 Number one, I don't know that PE is used in soap.
23 Like I said, it seems to me kind of
24 counterproductive.

25 But I've tested blank samples of paper

1 Lyter

2 that have been handled by a variety of
3 individuals, and I've never detected any PE. So
4 that to me says that the likelihood of finding a
5 contaminant of PE on a document because of the
6 handling process is extremely limited if -- even
7 if -- if it even exists.

8 Q. Are you aware that there's published
9 articles that have talked about the contamination
10 of documents regarding PE and people touching them
11 with their hands? Are you aware of literature on
12 this point?

13 A. No, I'm not.

14 Q. Here's a hypothetical for you. Let's
15 imagine you're back in July 2011 and you're at the
16 offices of that law firm and you're handling this
17 document without gloves and someone told you there
18 was a huge sign above the soap dispenser, which
19 was the only one you could use in the bathroom you
20 could use to wash your hands with, and it says, By
21 the way, this soap contains PE, would that cause
22 you to use gloves when you went back to handle the
23 document; do you know?

24 A. No, I probably would have only used
25 water to wash my hands.

1 Lyter

2 Q. Okay. Let's assume you used the soap,
3 though, and you saw the sign and went ahead and
4 used the soap, would you still go handle the
5 document with your bare hands, knowing that you
6 just washed your hands with soap with PE in it?

7 A. I don't know. I'd have to think about
8 it.

9 MR. BOLAND: Alex, at this point, I
10 would like to take one more break. I think
11 we're close to be done. But how about we take
12 15 minutes.

13 MR. SOUTHWELL: Okay.

14 (Recess taken from 11:54 to 12:14.)

15 Q. Dr. Lyter, can you hear me still?

16 A. I can.

17 Q. Did you provide a list of cases in
18 which you have testified in the past four years as
19 part of providing your report in March of 2011?

20 A. I don't know if I did. I frankly don't
21 remember.

22 Q. Do you know if you did that -- I'm
23 sorry, go ahead.

24 A. I frankly don't remember if I did that
25 or not.

1 Lyter

2 Q. Do you remember if you did that with
3 any prior declaration that you submitted in the
4 case?

5 A. No, I don't have any recollection as to
6 whether that was submitted prior to this.

7 Q. Do you maintain such a list of cases in
8 which you've testified in the past, at your
9 office, for example?

10 A. Yes, I do.

11 Q. And if you reviewed that list, would
12 you be able to tell me in how many of those cases
13 you issued a report and Gerald LaPorte was hired
14 by the other side's lawyers in that particular
15 case?

16 A. Maybe.

17 Q. Okay, well, I'll just leave a little
18 blank in the deposition and ask that you review
19 that list and provide that information to answer
20 that question within seven days, please.

21 TO BE FURNISHED: _____
22 _____.

23 MR. SOUTHWELL: All right. I'll ask
24 that Dr. Lyter provide that to us, and we'll
25 discuss that with you.

1 Lyter

2 Q. The GC/MS machine that you use at Duke
3 University, can you tell me the make and model of
4 that machine?

5 A. The manufacturer is Schmidazu
6 Schmidazu, S-C-H-M-I-D-A-Z-U, and I believe it's
7 2010 is the model number.

8 Q. And that's the machine, just to be
9 clear, that is set up to do auto sampling, and you
10 were not able to change the settings -- you were
11 not allowed to change the settings to a manual
12 injection; right?

13 A. That's correct.

14 Q. Do you have a copy -- do you have that
15 list -- that list I was just asking you about of
16 cases in which you testified previously, do you
17 have that list with you today?

18 A. No, I do not.

19 Q. Okay. You didn't bring it to New York?

20 A. I did not.

21 RQ Q. And then I'd also ask that the notes
22 that you brought with you that we've been talking
23 about today, if you can provide a copy of those to
24 us within seven days as well, because we've never
25 seen those.

1 Lyter

2 MR. SOUTHWELL: All right. Well, we
3 can discuss that along with all the notes that
4 you've been withholding from us.

5 MR. BOLAND: I mean, yeah, that's up to
6 you, Alex, if you want to provide it to us. I
7 ask he provide them to you, and if you guys
8 want to withhold them, there's nothing I can
9 say about that.

10 Q. And just to clarify that, the GC/MS
11 machine in Duke, if Duke permitted you, do you
12 have the ability to alter the settings of that
13 machine so you could use it with a manual
14 injection? Do you know how to change that
15 setting?

16 A. Well, it involves removing a physical
17 piece of hardware, and then there are some changes
18 to the software as well, just some settings in the
19 software. I'm sure that, given sufficient amount
20 of time, I'd be able to do that.

21 Q. Have you ever done that before with any
22 GC/MS machine?

23 A. Well, I certainly have used the GC/MS
24 in the past where I was using an individual --
25 well, it wasn't a GC/MS; it was just the GC part,

1 Lyter

2 where I was making manual injections.

3 Q. You were present in July 2011 for the
4 inspection of the actual two-page document at
5 issue in this case?

6 MR. SOUTHWELL: Objection to the form.
7 Do you want to specify which day?

8 MR. BOLAND: I couldn't hear that,
9 Alex. Objection what?

10 MR. SOUTHWELL: I'm asking if you want
11 to specify the day. The examination lasted
12 for multiple days.

13 Q. Dr. Lyter, what day in July of 2011, or
14 days, plural, perhaps, were you present in Buffalo
15 examining the two-page contract?

16 A. July 19th.

17 Q. And do you know what day the
18 examination started by the defendants' experts?

19 A. I don't remember.

20 Q. How did the document appear to you when
21 you first saw it on July 19th? How would you
22 describe it?

23 A. Which document are you talking about?

24 Q. The two-page contract that's the main
25 document in this case.

1 Lyter

2 A. Is that the one we referred to as the
3 "work for hire" document?

4 Q. Yes, that's how the defendants'
5 attorneys and everyone referred to it, that's
6 correct.

7 A. The pages were -- the paper of the two
8 pages was somewhat yellowed on the front, and
9 there were certainly deterioration of the ink
10 samples, ink entries, that appeared on both pages
11 so that the ink line was not consistent from side
12 to side or along the length of the writing. And
13 it was discolored, being more yellow to brown than
14 it was black. And then it was -- contained
15 toner-based printing on it that was dark in color.

16 Q. Did you capture any images of the
17 document before your examination began?

18 A. I believe I did, yes.

19 Q. And how did you capture those? What
20 type of devices?

21 A. Flatbed scanner.

22 Q. And did you record what the settings
23 were on that scanner when you used it for those
24 scans?

25 A. I didn't make any specific recording of

1 Lyter

2 the settings that I believe it's maintained in the
3 software as default settings so that I could
4 identify what they were.

5 Q. And approximately how many scans did
6 you take before you started examining the
7 document?

8 A. I believe just one each, each page
9 front side. I don't believe I took a scan of the
10 back side.

11 Q. And when you observed the yellow --
12 yellowing, I guess you called it, of the front of
13 the two pages, did you discuss that with any of
14 the other experts that were present on July 19th?

15 A. I don't recall there were any other
16 experts present.

17 Q. Fair enough. Was there anyone else
18 present? Were you by yourself in the room doing
19 your examination?

20 A. No, there was both defense counsel and
21 I believe Mr. Argentieri was there, and there was
22 a videographer there. And I don't believe anybody
23 else, or I don't recall anybody else, anyway.

24 Q. And about how long did your examination
25 take that day?

1 Lyter

2 A. I don't remember specifically. I think
3 somewhere in the neighborhood of four to five
4 hours.

5 Q. Did you provide copies of all the
6 images you captured of that two-page contract to
7 the defendants' lawyers?

8 A. I don't believe so, but I don't recall
9 specifically.

10 Q. Did you retain copies of those to this
11 day in your office?

12 A. Yes, I think so.

13 Q. And what type of an agreement did you
14 have or do you have with the defendants or the
15 defendants' lawyers as far as your work in this
16 case and how much you are to be paid?

17 A. I'm compensated for my time at the rate
18 of \$400 an hour.

19 Q. Is that from a retainer that you keep
20 on account with you or do you bill them
21 periodically and then receive a payment on that
22 invoice?

23 A. I did receive a retainer, and I billed
24 against it. And then I send monthly invoices.

25 Q. And approximately how much have you

1 Lyter

2 been paid for your work thus far in the case from
3 the first time you started working on anything
4 related to this case?

5 A. I don't know. I would have to check my
6 billing records that are back in the office. I
7 know that my initial retainer is \$4,000.

8 Q. Well, what would you estimate you've
9 billed them thus far, again, like a ballpark? Is
10 it \$500,000 or something less than that?

11 A. I wish. No, I would say maybe \$40,000.
12 That's a guess.

13 Q. And since you submitted your
14 declaration's last report in March of 2011, have
15 you done any other work on this case, analysis-
16 type work, not just conversations with lawyers?

17 A. Since I submitted the report?

18 Q. Yes.

19 A. No, I have not done any additional
20 examinations.

21 Q. Do you know if any of the other
22 defendants' experts have done additional
23 examination since March of 2011?

24 A. I haven't spoken with any of the other
25 experts, so I don't know.

1 Lyter

2 Q. Are there examinations you performed or
3 conclusions that you reached that are not
4 reflected in your report?

5 A. Yes.

6 Q. Well, let's break that up, then. What
7 examinations have you done that are not reflected
8 in your report?

9 A. I list in my report having done --
10 having used a VSC 4C on page 2 regarding the
11 ultraviolet. And I used the VSC through both the
12 visible and near infrared region as well to
13 characterize the inks that were on the "work for
14 hire" document, and those results were not
15 reported in the report.

16 And then I also did some testing, in
17 essence experimentation, to determine the effect
18 that ultraviolet light and heat had on paper
19 samples, in particular how they affected the
20 optical brighteners.

21 And then I also did an experiment with
22 determining how exposure to sunlight affected both
23 optical brighteners in paper as well as black ball
24 pen ink writings.

25 Q. And why didn't you put those -- the

1 Lyter

2 fact that you did those examinations in your
3 report?

4 A. Well, the VSC analysis was not
5 really -- was not included because I was going to
6 do chemical testing, and the results of the
7 chemical testing is normally more significant, in
8 particular the ability to identify the ink
9 formulations that were present on the
10 specifications document in this case.

11 And the experimentation was not
12 included in order -- because the results of that
13 testing was actually included in the conclusions
14 that were given regarding what had occurred to the
15 "work for hire" document, what had caused its
16 deterioration, and what we were seeing as regards
17 the ultraviolet examination.

18 And then the fact that the experience
19 that I had had relative to the effect of
20 examination equipment in causing deterioration of
21 documents, I had not had that experience. And the
22 length of time that was required to cause that
23 kind of effect simply validated that experience.

24 Q. Did you provide those conclusions to
25 the defendants' lawyers?

1 Lyter

2 A. I told them about it.

3 MR. BOLAND: Very well. Alex, I have
4 no further questions.

5 MR. SOUTHWELL: Okay. I've got no
6 questions either. I guess I just wanted want
7 to put a couple things on the record,
8 Mr. Boland.

9 I should have raised this at the
10 outset, but we had communicated the fee for
11 Dr. Lyter, and I'm just double-checking what
12 the amount is. I would ask that you write the
13 check today and put it in an overnight, you
14 know, delivery service for Monday delivery to
15 Dr. Lyter's address, which is on the first
16 page of his report, Lyter 2.

17 THE WITNESS: Yeah, that's a P.O. box.
18 I can give you a street address, which would
19 be --

20 MR. BOLAND: Yes, go ahead. What's
21 that street address? FedEx won't go to a P.O.
22 box.

23 THE WITNESS: It's 7425 Capstone,
24 C-A-P-S-T-O-N-E, Drive, Raleigh, North
25 Carolina, and the ZIP code is 27615.

1 Lyter

2 MR. BOLAND: Okay. I have the address,
3 Alex.

4 And then we'll talk about getting his
5 notes, copies of his notes, and the other
6 information from his case log as well so we
7 can conclude the deposition that way.

8 MR. SOUTHWELL: All right, yeah, we can
9 certainly talk about that in consultation with
10 Mr. Stewart's items that he has withheld.
11 There's seemingly a large amount of materials
12 that your experts have that have not given us
13 and that you have abrogated the agreement that
14 we had about mutual exchange. So once we can
15 resolve that --

16 MR. BOLAND: Stewart is the only one
17 left. I have responded to everything,
18 including Larry Stewart, what we will and will
19 not give you. Maybe we haven't given you
20 everything. The responses are all in.
21 There's nothing left hanging regarding the
22 responses from any of the experts from us, as
23 far as I know.

24 MR. SOUTHWELL: Well, okay, you may
25 have responded and said that you're not going

1 Lyter

2 to give us the things that were plainly -- no,
3 I take it back. Your response was we gave it
4 to you, and what we have pointed out is that
5 is incorrect.

6 So, frankly, I am waiting for a
7 response on how you square your claim that
8 you've given us everything with the reality of
9 the situation as it's detailed in the
10 deposition transcript.

11 MR. BOLAND: Oh, no, let's be clear.
12 We've given you everything that we think is
13 appropriate to provide, and there's other
14 things you've asked for that we felt, just
15 like you did, that they were more
16 appropriately obtained during deposition.

17 The same answer you gave to me on a
18 bunch of those questions, which I accepted,
19 and I went after a bunch of that stuff in
20 deposition, and so did you.

21 So we've responded to everything. You
22 got everything that we think is appropriate
23 just like you have given us everything that
24 you think is appropriate at this point, I
25 assume.

1 Lyter

2 MR. SOUTHWELL: No, Mr. Boland, that is
3 incorrect. Mr. Stewart testified that he
4 provided us with a PDF which included
5 everything including, for instance, his ink
6 inventory. He did not. You represented on
7 the record that you provided that to us. You
8 did not.

9 We provided you exactly what we got
10 from Mr. Stewart, which was not a PDF but a
11 series of images, and it did not include that
12 inventory, which both he and you claim to have
13 given us, and you have not.

14 So it is not a case of something
15 different where you're saying, you know, these
16 are things that we are saying are not
17 appropriate.

18 So I think there is still an issue here
19 that we need to get resolved, and I anticipate
20 that we will get it resolved so that we can
21 continue to depose Mr. Stewart about it. But
22 in any event, we don't need to take up the
23 record on all of this.

24 And the only other thing I wanted to
25 add is we are requesting a review of the

1 Lyter

2 transcript. I will -- I'll have to just
3 e-mail you confirmation of the amount for
4 Dr. Lyter, but you're representing on the
5 record here that you will provide the check
6 for the amount as we had previously discussed,
7 overnighted to the address Dr. Lyter provided
8 for Monday delivery; correct?

9 MR. BOLAND: Right, and you're going to
10 give me the amount, though.

11 MR. SOUTHWELL: Yeah. We had
12 previously communicated to it. I just can't
13 get my fingers on it right now. So I will
14 send it to you by e-mail shortly.

15 MR. BOLAND: And what about Larry
16 Stewart's payment? It's probably way over 30
17 days now. Can you guys put that in an
18 envelope today for Monday delivery as well?

19 MR. SOUTHWELL: I e-mailed you about
20 that yesterday. I don't think it is over 30
21 days. There's not a specific time frame. But
22 yes, I'm expecting the check today, and I was
23 planning to send it out.

24 MR. BOLAND: Oh, you're sending it out
25 today. Okay.

1 Lyter

2 MR. SOUTHWELL: As I told you
3 yesterday.

4 MR. BOLAND: All right. I just heard
5 yesterday in the e-mail was an accounting
6 issue, and I wasn't certain when you were
7 sending it. That's fine.

8 MR. SOUTHWELL: Well, I'm waiting for
9 the check. I believe I will have the check
10 today. And if I have the check today, then
11 I'll send it out.

12 MR. BOLAND: Very well.

13 MR. SOUTHWELL: So we're concluded for
14 today?

15 MR. BOLAND: Yes.

16 (Time noted: 12:36 p.m.)

17

18

19 _____
ALBERT LYTER

20

21 Subscribed and sworn to before me

22 this ____ day of _____, 2012.

23

24

25 _____
Notary Public

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C E R T I F I C A T E

STATE OF NEW YORK)
 : ss.
COUNTY OF NEW YORK)

I, LAURIE A. COLLINS, a Registered
Professional Reporter and Notary Public
within and for the State of New York, do
hereby certify:

That ALBERT LYTER, the witness whose
deposition is hereinbefore set forth, was
duly sworn by me and that such deposition
is a true record of the testimony given by
the witness.

I further certify that I am not
related to any of the parties to this
action by blood or marriage, and that I am
in no way interested in the outcome of this
matter.

IN WITNESS WHEREOF, I have hereunto
set my hand this 13th day of August, 2012.

LAURIE A. COLLINS, RPR

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DIRECTIONS:

MOTIONS:

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RULINGS:

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----- EXHIBITS -----

LYTER NO.	DESCRIPTION	PAGE
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ERRATA SHEET
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CASE: Ceglia v. Zuckerberg
DEPOSITION DATE: August 10, 2012

DEPONENT: Albert Lyter

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ALBERT LYTER

SUBSCRIBED AND SWORN TO BEFORE ME

THIS _____ DAY OF _____, 2012.

(NOTARY PUBLIC)

MY COMMISSION EXPIRES:

[& - amounts]

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